

IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

Please AMEND the paragraph beginning at page 2, line 11 as follows:

A further related technology is monitoring the position of catheters within the patient's body using imaging. Commonly used techniques are X-ray fluoroscopy and ultrasound. X-ray fluoroscopy is particularly suitable for real-time imaging, as the catheter material has quite different X-ray absorption to tissue and is readily apparent in the images. Monitoring catheter position using MRI is more difficult because the catheter generates no measurable MR signal (only NMR signals from liquid sources are measured by conventional MRI hardware), and is therefore only visible by its contrast when immersed in tissue generating high NMR signal. Furthermore, whilst video-rate MR images are possible, they demand high-specification hardware, so real time catheter tracking using MRI is difficult. However, MRI has several advantages for tissue imaging compared to X-ray (see below) and it is often only necessary to take "snap-shots" of catheter position at certain critical stages of the surgical operation. These include using the susceptibility ~~artefact~~artifact created by the catheter to make it visible (i.e.: detecting local distortion of the B0 field) (for example US 6, 332, 088, and C.J.G. Bakker, R.M. Hoogeveen, J. Weber, J.J. van Vaals, M.A. Viergever, W.P.Th.M. Mali, "MR-guided endovascular interventions: susceptibility-based catheter and near real-time scan technique", Radiology 202, 273-276, 196.), and embedding tuned RP coils in the catheter tip. (eg: US 6,289,233).